### SECURITY INFORMATION

## MIE 40

# ESTIMATED PRODUCTION, PRODUCTION CAPACITY, REQUIREMENTS, AND INVESTORY SOVIET BLOC AND WESTERN EUROPE

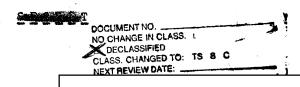
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COAL

#### L. Production

Reliable statistics on coal production in Western Europe and adequate information regarding past and planned production for most countries in the Soviet Bloc permit reasonably satisfactory estimates of production in 1951 and during Fiscal 1952 (1 July 51-1 July 52). Little data is available for China. Inner Mongolia and North Korea and it is possible that China's production could be 6 million tons (about 15%) less than the estimates shown in the attached table. As far as Inner Mongolia and Morth Korea are concerned, it is certain that whatever errors have been made in the estimates are of minor significance in the total production of the Soviet Bloc.

The estimates of production, production capacity and inventories are expressed in hard coal equivalent in order to eliminate misconceptions resulting from the use of figures for total tonnage, which include large quantities of lignite and brown coal with lower heat values than anthracite or bituminous coal, referred to as hard coals in Europe. It is very probable that fewer errors have been made in estimating the tonnages of hard coal, brown coal, and lignite involved, than in the actual conversion to hard coal equivalent. As a basis for conversion, the value of 13,000 Btu/lb. was arbitrarily used and brown coal and lignite figures were adjusted in accordance with relative heat values. With few exceptions, no attempt was made to adjust hard coal for any variation from the standard employed. Available data on the wide range of qualities of various coals produced and the tonnages involved do not permit any more than rough approximations of the hard coal equivalent but, despite this unavoidable weakness in the calculations, the figures do serve to show more clearly the relative importance of the coal production in the various countries than would figures of total tonnage.



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It is necessary to mention that estimates shown in hard coal equivalent blot out the fact that all or a preponderant part of the tonnage produced in some countries consists of brown coal and/or lignite. These coals are not interchangeable with hard coals for many purposes and countries with sizeable production of brown coal as, for example, East Germany, must import large quantities of bituminous. All the Luropean Satellites, with the exception of Poland, are deficient in production of bituminous coal, especially coking coal.

The estimates of total coal production for the Soviet Bloc are 630.8 million metric tons (452.7 million tons H.C.E.) in 1951 and 655.7 million metric tons (471 million tons H.C.E.) in Fiscal 1952. Anthracite and bituminous coals comprise about 55 percent of the total production.

The 1951 target for the USSR is reported to be an increase of 9 percent over 1950, indicating that the goal is approximately 285 million metric tons. During the first seven months of the year, output increased 8.3 percent as compared with the corresponding period of 1950. The estimated total output for 1951 is 280 million tons (240 million tons H.C.E.), but it is possible that this figure may be exceeded by several million tons. According to Beriya's Anniversary Speech of November 6, 1951, the USSR coal industry was currently meeting the country's requirements and also insuring the creation of necessary reserves. Since World War II, the USSR has been importing between 7 and 10 million tons of bituminous coal annually from Poland and shipments to the USSR from China and North Korea have been reported, but the quantities are not believed to be particularly important. It would appear that the USSR had less need for imports than in the past but they will probably continue, at least until reserves meet desired levels.

All the European Satellites are striving to increase coal production, but plans are generally not being fulfilled. These countries are all short of mine labor and equipment at the present time. The coal situation in Czechoslovakia, Hungary, and East Germany is becoming serious as requirements tend to increase more rapidly than production. It is probable that Poland will have to increase shipments to fulfill growing deficiencies.



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Poland's production of bituminous coal is expected to reach about 80 million tons in 1951, an increase of approximately 3 million tons over 1950. This should permit a surplus of about 26 million tons for export, exclusive of 4 million tons or more of brown coal normally supplied to Last Germany.

Coal has been one of the most critical commodities in Jestern Europe throughout 1951. Output in the Ruhr has not yet regained the pre-war (1938) level despite a considerable increase in the mine labor force. The same is true of the Netherlands. In France, the Saar, and Belgium, coal production is equal to or higher than pre-war but in these countries too, output per manshift has not yet regained the pre-war level. Coal production in all these countries is limited primarily by the lack of development and modernization, which can be compensated only in part by increased employment of labor.

It is estimated that Western Europe will produce 337.1 million metric tons of coal (275.6 million metric tons H.C.E.) in 1951 and 351.2 million tons (285.5 million metric tons H.C.E.) during Fiscal 1952.

Demand has risen sharply since the start of the Korean war with the result that it has been necessary to import not less than 37 million tons in 1951, or approximately 12 percent of requirements. Poland is scheduled to furnish about 12 million tons and the US will ship another 25 million tons. The UK will probably supply a few million tons, and minor quantities will be furnished by a few other countries, including the USSR. It is expected that this deficit will gradually be reduced as current and planned investments in the mining industry provide increased output.

# II. Inventories

Very few statistics are available as a basis for estimating coal stocks in any country of the Soviet Bloc and the figures that are available for countries in Western Europe understate the total inventories since they do not include coal held by consumers. However, stocks have been at critically low levels in all countries of Western Europe during 1951 and are not significantly important in the Soviet Bloc.



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There is a tendency for year-end inventories to be smaller than at mid-year. Indications are that none of the European Satellites have held stocks during recent years that exceeded an average months! requirements. The existing coal shortages and increasing demand for coal in the face of lagging production preclude the possibilities for any abnormal build-up of stocks among these countries during the next year unless Poland reduces exports to Western Europe and the USSR. Moreover, a considerable part of the coal produced is unsuitable for prolonged storage.

Prior to 1950, the USSR was very short of coal but, during 1950 and 1951, supplies have permitted inventories to expand. However, it is doubtful that the USSR will have stocks at the end of 1951 which will exceed more than a few week's average requirements.

considerable stocks of coal piled up at the mines in China during 1949 and 1950 because of inadequate transport facilities. Distribution has improved during 1951 and stocks held at the mines have probably been reduced. Actual reserves are not known, but they probably will not exceed 4 million tons by the end of 1951. Inventories at mid-1952 are estimated at 5 million tons, but the quantity could be higher if output is not restricted because of reduced demand in the surmer.

# III. Production Capacity

The production capacities of the coal mines in Western European countries have not been estimated for lack of sufficient data, but it seems safe to assume that capacity at anytime during 1951 and at mid-1952 could not be much higher than production levels.

In the Soviet Bloc, all countries, with the possible exception of China, are producing about all the coal that the labor forces and equipment will permit. However, absenteeism is reported to be high in Hungary and Czechoslovakia. Employment of women and youth has been general in the European Satellites and the USSR and there is some dependence on forced labor. Mines are working 6 and 7 days per week in all the Satellite countries and most of the Soviet mines are operated on 3-shift schedules, seven days per week, closing down only for a few holidays.



# SECURITY INFORMATION

# IV. Estimated Annual Production Rates, Mid-1953, Mid-1954

Estimated annual production rates, Mid-1953, Mid-1954, have been replaced by estimated production for Fiscal 1953 and Fiscal 1954, which represent averages of estimates made for calendar years.

The estimates for the Soviet Bloc have been governed to a considerable degree by production trends and plans and the increasing requirements for coal. In practically all cases, the estimates are less than the increases called for in the annual plans and could still be higher than may be realized under war conditions.

The coal industry in each of the European Satellites is confronted with many serious difficulties in peacetime and undoubtedly these would increase during a war. Labor is currently dissatisfied with wages and working conditions, and it seems certain that use of forced labor will be prevalent. Sithdrawal of some skilled workers and replacement with women and youth would result in lower productivity. Another factor that could restrict production is sabotage, but there is no way of gauging what the extent and effects may be. On the other hand, coal is a vital necessity to a war economy and every effort will be made by the authorities to raise production.

During recent years, the USSR has increased output about 26 million tons annually, but this rate of growth was bound to slow down domewhat, as it apparently has done in 1951. The estimates for Fiscal 1953 and Fiscal 1954 are based mainly on four factors: (1) the objective for annual output to reach 500 million tons between 1960 and 1965, (2) the greatly increased productivity of new machinery, (3) the expansion of requirements, and (4) the operation of new mines, construction of which lagged during rehabilitation of the old mines in the Donetz Basin. The estimates should be considered as the maximum that are likely to be attained under war conditions.

The estimates for Western Europe rest on the assumptions that a Soviet invasion would not have much effect on production and that current plans to raise production through installation of new machinery, expanding development, and



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#### SECURITY INFORMATION

employing more labor would not be radically changed. Without accepting these assumptions, it is difficult to defend the estimates. Destruction of power plants and railroad facilities, as well as destruction of mines resulting from conflict and sabotage, could have severe repercussions on coal production. Furthermore, the matter of cooperation from labor is a factor that is difficult to evaluate.

If the Soviets can attain quick control of the principal coal producing areas in the Ruhr, France, Belgium, and the Metherlands, before much destruction could occur, it is likely that there would be only temporary disruption of
operations and the overall effects on production in Mestern Lurope would be
relatively unimportant. Coal is so necessary to the maintenance of the Western
European economy that it is certain the Soviets would do everything possible to
get a firm hold on the main coal districts and have the mines operating at capacity.

# V. Requirements

The estimates of consumption requirements for coal in the countries of the Soviet Bloc are predicated on production capabilities adjusted for estimated import and export requirements, planned production and evidence on the adequacy of supplies. In cases where sufficient information is available regarding past requirements of large consumers, such as power stations and reilroads, some projections have been unde for probable increases, but estimates of requirements for each consumer category are not possible from available data. Satisfactory consumption patterns as a basis for projections are available for only a few countries of the Soviet Bloc.

Poland is the only country among the European Satellites with a large coal surplus. Analysis of Poland's probable requirements for 1952 indicates that approximately 10 million tons of bituminous coal may be available for shipment outside of the Soviet Bloc, assuming that the USSR receives about 7.5 million tons and allowing for some increases in exports to the European Satellites as compared with 1951.



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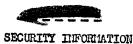
Among the Luropean Satellites, only Tast Cormany and Czechoslovakia have to depend on Poland for large quantities of coal. The other countries are self-sufficient except for the necessity of importing minor quantities of bituminous coal.

Under war conditions assumed for Fiscal 1953, it seems fairly cortain that, as in peacetime, the Soviet Bloc will have adequate quantities of coal for all essential requirements with the possible exception of coking coal. It will be possible to reduce available supplies considerably without effecting war potential, since consumption could be reduced if nedessary. The estimates do include allocations to domestic consoners and small industries that could use wood. It it probable that Last Germany would receive more bituminous coal than under peace conditions. This coal could be diverted from either Poland or the Ruhr.

The estimates for the countries of Western Europe are based mainly on E.C.E. reports. Peacetime requirements in 1952 are estimated to total approximately 393 million tons of hard coal, lignite, and brown coal (321.8 million tons II.C.E.) which indicates a deficit of about 28 million tons of hard coal. Under peacetime conditions this deficit can be met entirely by imports from Poland and the US.

During the first year of a war covering Fiscal 1953, it is certain that there will be drastic cuts in allocations to domestic consumers and bunker fuel for shipping. Estimates for Fiscal 1953 are based on the peacetime estimates for 1952, which have been adjusted in all the Western European countries by reducing requirements for domestic heating by 75 percent and, in some countries, by making heavy reductions in small industries. Bunker fuel was eliminated except in Spain and Norway. In Spain, requirements were reduced 25 percent for the fishing fleet and 75 percent for the merchant marine. Coal for power stations was reduced 50 percent in Finland, 30 percent in Portugal, 20 percent in Denmark and Italy, and 15 percent in the Netherlands with lesser reductions in a few other countries. This would result in less than a 10 percent reduction in overall production of electric power. Railroad fuel was cut 50 percent in Finland, 30 percent in Portugal, 15 percent in the Netherlands, and 10 percent in Denmark.





Coking coal requirements were reduced one-third in Italy and minor allowances were made in some other countries for quantities of coke used domestically.

Coal for gas works was reduced 25 percent in Italy.

The assumed reductions resulted in a decrease in total requirements of 50 million tons N.C.E., or 16 percent, which, compared with the estimated production in Fiscal 1953, would leave a surplus of 26.2 million tons N.C. E. in Western Europe. This combined with a surplus of about 14.8 million tons in the European Satellites would make a surplus of about 41.0 million tons for Europe. This is in excess of the quantity of coal that can be used as a replacement for oil; hence, oil rationing need not be as severe as assumed in this study.

Considering the coal deficit existing in Mestern Murope in 1951 and the large deficit anticipated in 1952, it is obvious that some radical changes in allocations of coal will be necessary during a war, especially since production could be affected and shortages of oil would mecessitate conversion to coal. In view of the possibilities, however, for eliminating the use of coal in many non-essential industries and cutting allocations to demestic consumers, there should be sufficient coal available to take care of the needs of essential war industries.

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